THE NEAR INFRARED $Y^2\Sigma^+ - X^2\Pi$ TRANSITION OF COPPER SELENIDE

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The near infrared electronic transition of CuSe has been observed for the first time. The spectrum of the $Y^2\Sigma^+ - X^2\Pi$ transition, labeled by analogy with the CuO and CuS near infrared electronic transitions, was recorded with the Fourier transform spectrometer associated with the McMath-Pierce Solar Telescope, Kitt Peak, AZ. The CuSe molecules were produced in a King-type carbon tube furnace operating at 1800 C and at a total pressure of approximately 400 torr. The electronic term energy and vibrational constants for both states will be presented.